

# Nuclear Division News



A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 8/No. 14/July 7, 1977



Barker



Anderson

132513



Brooks



Skipper



Neeley



Stafford



Barnes



Purnell



Byerly



Hillard



Jared

## \$34 million enhances areas' economy in savings payoff

A cash distribution of approximately \$34.5 million was made June 30 to employees at four facilities in Oak Ridge, Tenn., and Paducah, Ky., operated by Union Carbide Corporation's Nuclear Division. The money is being distributed to 13,709 participants in the Carbide Savings Plan.

The amount of money received by employees at the Oak Ridge facilities totals \$31.1 million, while 1,613 employees at the Paducah Gaseous Diffusion Plant received approximately \$3.4 million.

Every two years, participants in the Carbide Savings Plan receive the money they have saved, plus a company contribution, plus interest. Nationwide, this year, the payout to some 57,100 participating Union Carbide employees totals \$143.4 million — \$107.8 million in savings, \$22.3 million in company contributions, and \$13.3 million in earned interest.

Under the Savings Plan, an employee may authorize payroll deductions up to 7½ percent of his or her earnings. The company contributes 10, 20 and 30 percent of this amount, depending on whether the employee has one, two or three or more years of company service.

Union Carbide employees living in Oak Ridge received approximately \$9.9 million, while employees in Knox County received \$9.1 million. Distributions to employees in other areas included: Anderson County, \$3.5 million; Roane County, \$4.6 million; and Loudon County, \$1.9 million. An additional \$2.1 million was received by employees living in other areas in Tennessee.

**James E. Brooks**, bus and truck driver in ORNL's Plant and Equipment Division, is going to "vacate" with his savings.

"My wife (Mildred), daughter (Debbie) and I are planning a trip out west this summer — to California along the West Coast and back the southern route," says Brooks.

"We'll travel in our home-on-wheels — a 26-foot long, self-contained travel-trailer."

*"I plan to 'vacate' with mine."*

Another new car will be added to the Oak Ridge scene as **Franklin D. Skipper**, puts a shiny new one in front of his 100 Henderson Lane address. Skipper is an instrument mechanic in ORGDP's Maintenance Division.

**Gwen Stafford**, a secretary in ORGDP's Power and Utilities Maintenance, is putting her savings payoff — all of it — into a savings account. She also adds she plans to leave it there.

**Virginia Byerly**, a secretary in ORGDP's Shops and General Maintenance, wants to splurge on at least one luxury she has wanted for a long time — a microwave oven.

**Beverly Grubb**, Metal Preparation, Y-12, and husband, **Bill**, are using theirs to finance a second baby! They have an 18-year-old daughter, already, and expect a second child in October. They are adding a new room at their 444 East Drive, Oak Ridge, home for the big event.

Another husband and wife team, **Sheila and John Purnell** (she's on the General Staff in Y-12, and he works at ORGDP) are making big plans. "We spent it about five times, before we actually got down to where exactly it would go," she tells. "Now we've decided to pay off all our bills, then purchase a new car."

**Karolyn A. Barnes**, ORNL Technical Publications Department, and her husband, **John**, ORNL Computer Sciences Division, plan on splitting their nest egg. "Half will go towards home improvement, such as carpets and a heat pump; and the other half is for our bi-annual family reunion."

"Judging from the 1975 attendance, we're expecting over 300 relatives from nine different states to congregate for this year's reunion... some from as far away as California. Local Pine Bluff, Ark., media will be covering the event."

(Please see page 8)

## How did you spend yours?

How much is \$34 million piled into one big heap? Put end on end these one dollar bills would stretch for 3,200 miles or as travel authorities tell us — from Knoxville to Seattle, Wash. That's a heap of scratch no matter how you look at it! Imagine walking from here to Seattle picking up dollar bills every step of the way. Rather than boggle our minds with this kind of imagery, we decided to spot check employees around the area to see how they plan to spend their money.

Of course, we found some in the Personal Investment Account, who don't get any settlement. They expressed regrets for being in this part of the Savings Plan **only** at this particular time, when everyone else is getting cash, and they are busy salting away security for their future.

A vast number stated they were going to pay off bills, or catch up with inflation — not an easy task these days. An interesting comment came from Power Operations at ORGDP,

when an anonymous employee said he was "going to blow it like he does every two years!"

Random surveys revealed the following:

**Art C. Neeley**, Development Division in Y-12, came up with probably the most unusual use for his savings settlement. He plans to use his money to support two sons in their missions for the Church of Jesus Christ of Latter Day Saints. His son, Steve, is serving a mission in Italy at present, and his son, Keith, is awaiting assignment. In the Mormon Church, the missionaries do not receive any compensation from the Church; the families provide the needed support.

*Plans to use his money to support his two sons in their missionary work.*

After 23 years . . .

## Perseverance earns diploma, master's degree next goal.

*Editor's note — This is the first in a series of articles on Nuclear Division employees who are continuing their education in school.*

George K. Ford, a senior engineering draftsman in ORNL's Chemical Technology Division, has been a member of the Nuclear Division since 1959. He has also worked as a draftsman at Y-12 and in the Engineering Division at ORNL.

A native of Kingsport, Tn., Ford and his wife, Dot, live at Route 15, Garrison Road, Knoxville. They have two children, Jeffrey and Dee Dee.

Ford is a member of the American Society of Engineering Technicians.



George K. Ford

By Ramona A. Morris and John R. Hughes II

On December 12, 1975, George Ford, draftsman in ORNL's Chemical Technology Division, awoke and dressed as usual, but that day he added a little extra to his attire -- a black cap and gown. Twenty-three years after beginning his college career, Ford walked across the stage and received his bachelor's degree in industrial education, fulfilling a life-long dream. Today, he is only a year away from obtaining his master's degree.

Ford first dreamed of being a college graduate as a youngster in an Upper-East Tennessee, one-room school house. The little school contained grades one through eight, and had outside plumbing. Ford remem-

bers the students carrying water each day from a nearby spring.

*The desire to finish college was always in the back of his mind.*

After completing high school and four years in the U.S. Navy, Ford enrolled at the University of Tennessee. But due to sickness and extenuating circumstances, he only finished part of the requirements for his degree. During the next several years, Ford divided his time between family, work and his antique car

collection. However, the desire to finish college was always in the back of his mind.

Finally, in 1965, a good friend, George Heins, talked him into returning to college. Heins didn't actually talk him into returning, according to Ford, he tricked him! Heins called and made an appointment with Gerald K. LaBorde of UT's college of industrial education. "My wife, Dot, encouraged me to keep the appointment," Ford said.

After talking with LaBorde, Ford decided to take one course "to get my feet wet." For the next several years, he spent two or three nights a week at the University of Tennessee evening school.

*"To me an education is finding out just how little one really knows."*

Although many people avoid going back to school at night because they will have less time for family life and other activities, Ford said he and his family feel it was worth the sacrifice.

Going back to school did leave less time for many activities. Ford was active in the Antique Auto Club of America and served as president of the Smoky Mountain Model-A Ford Club for two years. He also spent a lot of time with his antique car collection. Ford owns three 1929 Fords and a 1932 B-model station wagon -- one of only five known to be left in the United States. In addition, he was an active supporter of the Little League baseball program.

"I put most of these activities aside while getting my college degree, but I don't feel that I neglected my family. Anyway, the cars are still there. When I get my master's degree I can get back into restoring them," Ford said.

Ford was very moved by all the activities which surrounded his graduation. "I was so shook up when I ordered my class ring that my wife had to finish filling out the papers."

*Less time for family life and other activities, but he and his family feel it was worth the sacrifice, said Ford.*

During the graduation ceremony itself, students are given a blank piece of paper to assure that no one receives the wrong diploma. "I don't see why they call these 'dummy' diplomas," Ford said. "I felt I had accomplished something even when I was given that blank piece of paper! But I felt even better when I saw my name on the real diploma."

Since his graduation, Ford has taught industrial education drafting at the UT Night School. He also has taken several in-plant courses at the Y-12 Plant, including blueprint reading and simplified mechanics and strength of materials. "To me, an education is finding out just how little one really does know," Ford said.

He is highly enthusiastic about Union Carbide's Educational Assistance Program, and in-plant training as well. "It's that added incentive that really pushes you on," he mused, "almost like frosting on the cake."

Ford is hoping to complete the 18 hours required for his master's degree by this December. "My wife talked me into this one, too," Ford said. "In fact, I really owe it all to my family - Dot, Jeff and Dee Dee. It was their support and understanding that made it possible."

## Fusion Energy makes subcontract awards for electromagnet coils

Subcontracts for the design and fabrication of three 40-ton experimental superconducting electromagnet coils have been awarded by ERDA through the Fusion Energy Division of ORNL, which will conduct tests of the coils as part of the nation's ongoing fusion energy research program.

Superconducting magnets are electromagnets made of materials which can conduct electric current without resistance, thus requiring very little electrical power, at temperatures near absolute zero (about -460 degrees Fahrenheit).

The subcontracts were awarded to General Electric Company, Schenectady, N.Y.; General Dynamics, Convair Division, San Diego, Calif.; and Westinghouse Electric, Large Rotating Apparatus Division, East Pittsburgh, Pa.

### Sixteen feet tall

The long-range focus of ORNL's tests with the superconducting coils is a power-producing fusion reactor which could be constructed in the 1980's. The test coils will carry about the same current as that required for this reactor.

The D-shaped coils, scheduled for delivery to ORNL in 1980, will each measure about 16 feet high, 10 feet

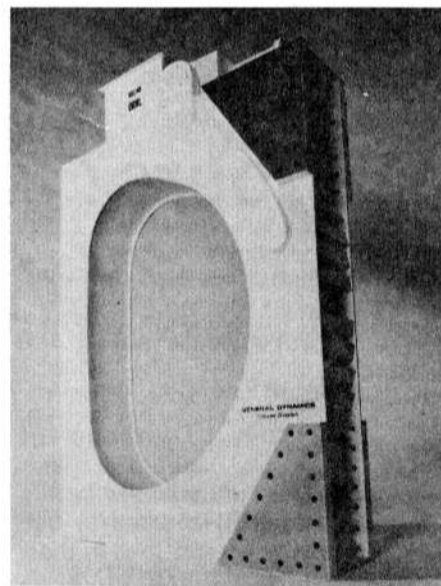
across and 2 feet thick. When tested together, they will produce magnetic fields up to 100,000 times the intensity of the natural magnetic field at the earth's surface.

### Need intense fields

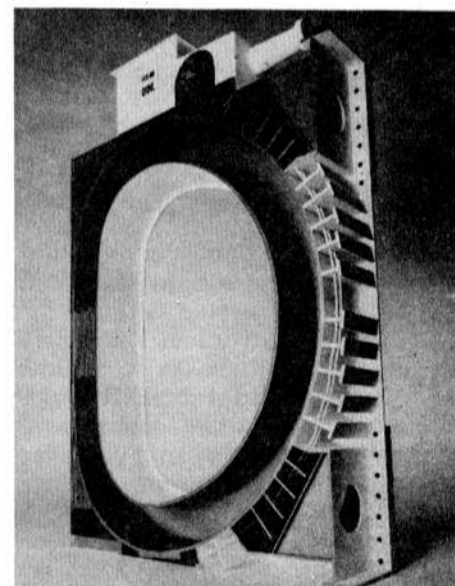
In order for a fusion reactor to occur, the gaseous-state "fuel" -- called plasma -- inside the reactor must be confined to a given volume for a specific length of time at very high temperatures. One of the few devices with which it appears possible to do this is a tokamak, a Russian invention which confines the plasma within a doughnut-shaped "magnetic chamber" produced by encircling electromagnet coils.

Although principles of the tokamak concept have been proven experimentally in several countries, in order to produce useful power from magnetically confined plasmas it will be necessary to build devices larger than the present-day experimental machines, with magnetic fields that can be economically sustained for long periods of time.

Many scientists and engineers have concluded that the best way to produce the intense magnetic fields required in a tokamak fusion reactor is by the use of superconducting



Side plate on



Side plate removed

Log 299

General Dynamics' scale model of a magnet coil is shown above with the side plate on (left) and removed. The actual magnets will be 16 feet high and 10 feet across, and will weigh 40 tons each.

magnets. There are technical problems to be overcome, however, because of the low temperatures required for superconductivity to occur, and because superconductor wires must be firmly supported against the tremendous internal forces in the magnets.

"Successful operation of the test coils under simulated tokamak conditions will represent a substantial advance from the present state of the art for superconducting magnets," says Paul Haubenreich of the Fusion Energy Division. "We feel that the test

(Please see page 8)

## ERDA chooses Y-12 employee to serve on Indian committee

Marilyn Kay Condra, Y-12's Chemicals and Plastics Development, recently was appointed to the membership of the American Indian Advisory Committee. This is part of ERDA's Affirmative Action Advisory Committee.

Condra attended a seminar in Phoenix, Ariz., last week to discuss employment for the American Indian.



Condra

A native of Oliver Springs, she holds a B.S. in industrial arts from the University of Tennessee. She also attended Hiwassee College and is doing graduate work at UT. Condra joined

Union Carbide last year, and serves on the Affirmative Action group for the Y-12 Plant.

Condra, along with Charles A. Blake, manager of Equal Employment Opportunity Programs for Union Carbide Corporation, recently completed a study of the availability of engineers and technicians in the Southeastern area who are native American Indians.

Being an Indian is not a requisite for participation in the advisory group for ERDA. Members from all sections of the country are chosen for their knowledge of employment among this minority.

"If being an Indian were a requirement, I wouldn't have made it," Condra stated, "since I'm only half-Indian."

## anniversaries

### ORGDP

35 YEARS



Magnuson

Dale W. Magnuson, a physicist in special projects in the Gaseous Diffusion Development Division, joined Union Carbide in the SAM Laboratories at Columbia in June, 1942. From 1944 until 1955 he worked at ORGDP, from 1955 until 1973 in Y-12 and ORNL, transferring back to ORGDP in 1973. A native of Nebraska, he graduated from Nebraska Wesleyan and also did graduate work at Columbia. He earned his Ph.D. in 1951 at the University of Tennessee. He and his wife, Doris, live at 11 Brookview Lane, Knoxville. They have five children, Christina, Dwight, Carol, Paul and Phillip.

### 30 YEARS

Leslie C. Herron, Medical Department; Wade L. Kelly, Shop Services Department; and Theodore W. Bartlett, Chemical Analysis Department.

### 25 YEARS

Marilyn B. Canterbury, Marvin B. Tate, Roy L. Smitherman, A. J. "Gus" Legeay Jr., William F. Nolen Jr., James W. Hodges, Richard C. Wood, Marcus C. Martin and Robert D. Boone.

### 20 YEARS

Samuel G. Bishop, John D. Hodgesteger, Onah S. Fox, Franklin E. Muggridge and Carl E. Powell.

### Y-12 PLANT

#### 30 YEARS

Charles J. Buchanan, Utilities Administration.

### Y-12 PLANT

#### 25 YEARS

Harold W. Zang, Horace M. Russell, Loretta M. McBee, Robert W. Frazier, Robert E. Stubblefield Jr., C. Kenneth Valentine, Paul E. Clifton and Robert W. Jackson.

#### 20 YEARS

Philip N. Fisher, James D. Phillips Jr., Harry W. Fallon, Dewey W. Young, Paul F. Boyer, Jackie F. Ward, Theodore Newman and Olga T. Barnes.

### PADUCAH

#### 25 YEARS

Eugenia M. Johnson, John W. Stearns, John R. Switchers, Thomas G. Lanham, Frederick A. Thomason, William O. Cherry and Johnnie B. Thomason.

#### 20 YEARS

John D. Tucker and John D. Hankins.

### ORNL

#### 30 YEARS

William C. Waggener, Chemistry Division; James F. Land, Chemistry; Ernest W. Davis, Plant and Equipment; Roy W. Weber, Laboratory Protection; Paul Crawford, Plant and Equipment; Blaine Ward, Plant and Equipment; Lawrence R. Hall, Analytical Chemistry; and Herbert S. Brown Jr., Operations.

#### 25 YEARS

Russell G. Jenness, Roy E. Thoma Jr., Charles S. Yust, Joel A. Carter, Geraldine O. Brown, Robert A. McNeas Jr., Martha R. Childs and Kyle E. Sowder.

#### 20 YEARS

Shirley J. Ball, Robert E. Minturn, Walter C. Cox, A. H. Gregory, Karl W. Haff, Gladys M. Carpenter, Gerald E. Cosgrove Jr., Mary Helen Owen, Richard L. Becker and Burl F. Henry.

### Warm weather energy-saver

Do as much cooking as possible, and use heat-generating equipment, in the early and late evening hours.

## retirements



Paul C. Marine  
Y-12 utilities  
29 years service



George C. Meredith  
Y-12 Research Services  
26 years service



M. D. "Red" Roach  
ORGDP Technical Services  
40 years service



Homer D. Baker  
Y-12 Utilities  
29 years service



Alonzo A. Curtis  
Y-12 Machine Maintenance  
26 years service



Clayton W. Cook  
Y-12 Foundry  
26 years service



James D. Ruffner  
ORGDP Operations  
28 years service



Alberta P. Henley  
Biology, ORNL  
30 years service



Douglas S. Billington  
Metals and Ceramics, ORNL  
31 years service



Earl A. Nichols  
Inspection Engineering, ORNL  
24 years service

## ORNL Summer Seminar Series

The ORNL Summer Seminar Series is a program of summer lectures for visitors, summer employees and regular staff, held on Tuesdays, 3 p.m., East Auditorium.

**July 12** — Henry D. Cochran Jr., "Coal Conversion and Utilization."

**July 19** — Peter Mazur, "Biological and Medical Implications of Living Frozen Cells."

## Employee not buying bonds invited to 'join the crowd'

Employees who are not presently enrolled in the Company's Payroll Savings Bond Program have received a letter from Nuclear Division President, R. F. Hibbs, asking them to join the more than 11,400 Nuclear Division employees who are buying Series E Savings Bonds at a rate of \$2,906,000 a year through regular payroll savings.

Those who have not already enrolled have been urged to complete the Payroll Savings Authorization card at their earliest convenience and return it to Nuclear Division Payroll in the postage-paid envelope which the Company has provided.

A sizeable number of employees has never been offered the opportunity to participate in the payroll savings program. It is hoped that each employee will give serious consideration to putting a portion of his or her savings into U.S. Series E Savings Bonds.

Throughout the nation, some 9.5 million persons are buying bonds regularly through payroll savings. The Treasury Department recently announced that since the Series E Bond was introduced on May 1, 1941 and the later Series H Bond, more than \$229 billion worth have been sold. Of

this amount, more than \$65 billion are still being held.

The reasons for the popularity of savings bonds are not hard to find. They are easy to cash. They are safe and indestructible. The interest rate is good — 6 percent a year when held for the full five-year maturity.

There are a number of tax advantages which raise the effective yield. The interest is exempt from all state and local income or personal property taxes. It, of course, is subject to federal income tax. The tax, however, does not have to be paid until the bonds are cashed, and you can select the time to cash them. In addition, there are a number of ways to minimize or eliminate the tax altogether by buying the Bonds with your children as owners or postponing the cashing until after you have retired.

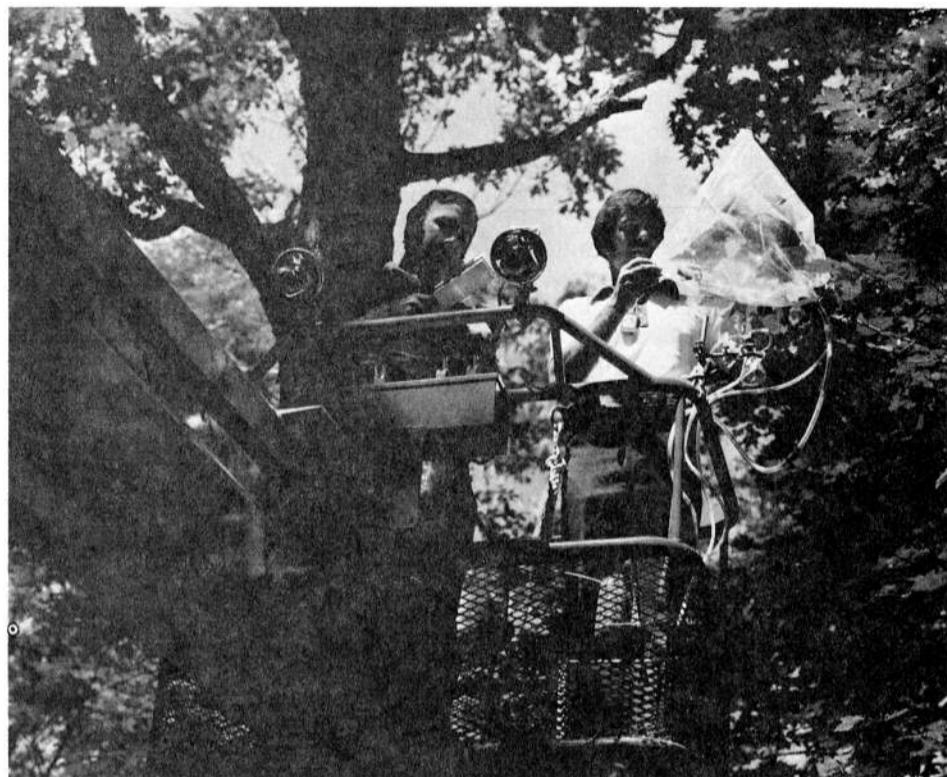
Signing up is easy. Select the amount of money you want to save each pay period, not less than 50 cents per week or \$2.00 per month. Show the name, address and social security number of the person you want shown as owner, and co-owner or beneficiary. Sign and date the card

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## Work of Nuclear Division photographers featured in annual



**Walking Through Snow—Jon Thompson**



**Environmental Researchers—James Richmond**



**Workman's Canteen—Charles Tucker**

**James Richmond** is a senior photographer at ORNL. He attended St. Bernard (Ala.) College and served as a U.S. Air Force photographer in Vietnam and Germany before joining Union Carbide in 1968. He states, "The dynamic and historic happenings at this diversified research facility have produced a great quantity of exciting photographic assignments." His photograph documents the study of research on the effect of  $C^{14}O_2$  on leaves. It was made for the Environmental Sciences Division last summer.

\* \* \*

**Jon Thompson** joined the photographic staff at ORNL last year. Prior to that time, he did newspaper and public relations photography. His assignments at Union Carbide include all facets of research. His "Walking Through Snow" was taken as a result of a personal experiment. A high contrast line positive was sandwiched with a photomicrograph of a crystal of heated resorcinol and urea, and the

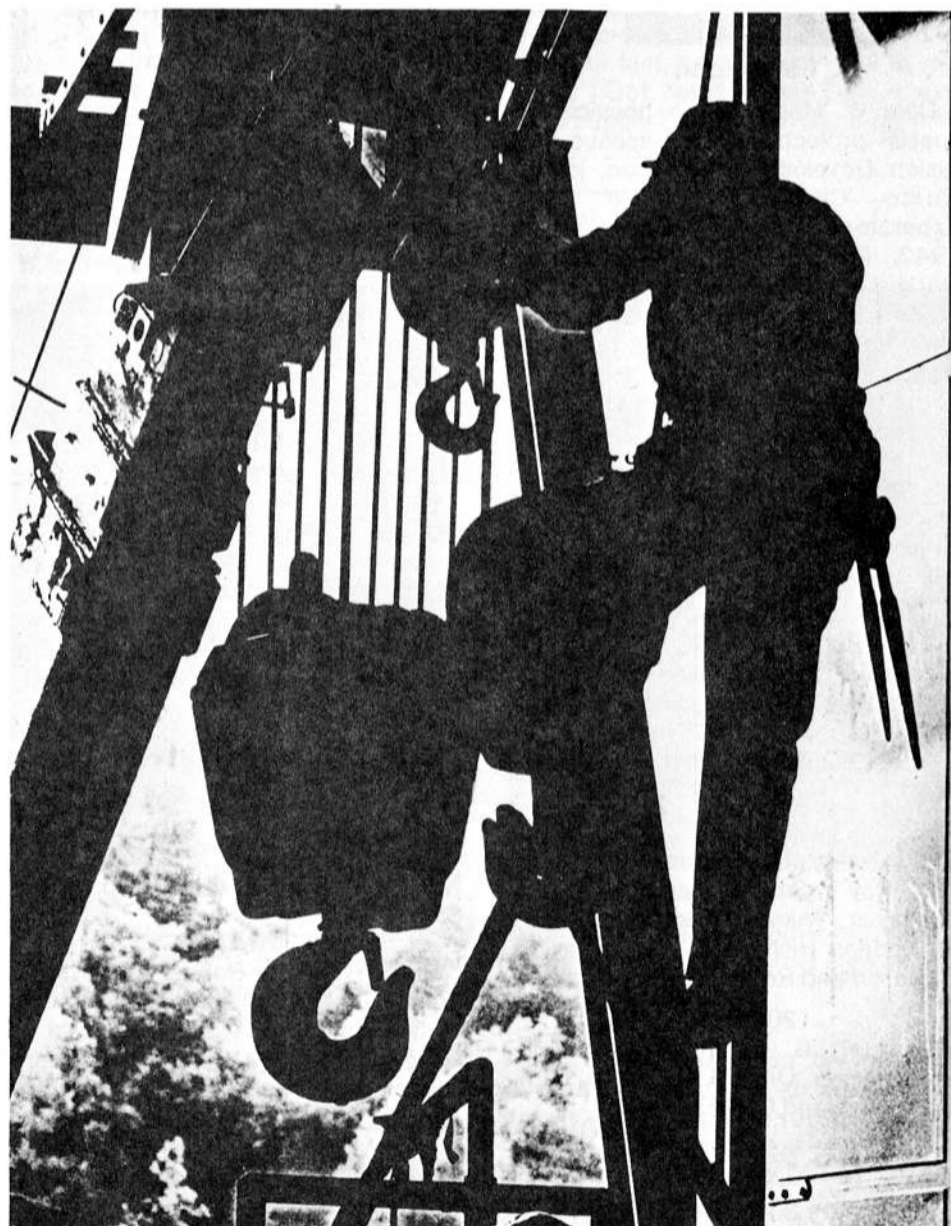
combination duplicated onto Ektachrome-X film.

\* \* \*

**Charles Tucker** grew up in a photographic environment: his father ran a photo studio. Tucker served as a photographer's mate in the U.S. Navy and did various kinds of photography before joining Union Carbide. As he describes it, his job in Y-12 requires "going from shooting a mechanical part the size of a fingernail to shooting in a bay area the Queen Mary could fit in." His black-and-white print of a rigger was the Nuclear Division's only non-color entry in the magazine.

### next issue ...

The next issue will be dated  
July 21. The deadline is July 13.



**Rigger—Charles Tucker**

The work of three Nuclear Division photographers has been selected for the **1977 Annual Industrial Photography** magazine, a showcase of the year's best in industrial photographic efforts. More than 2,500 submitted photographs were judged by a panel of expert photographers, editors and audio-visual technicians.

Jon Thompson's blue and pink print of people in snow was featured on the cover of the publication. Inside were a color shot of ORNL's "Poplar Tree" canteen and a black-and-white silhouette study by Charles Tucker, and a color photo of environmental scientists at work by James Richmond.

## question box

If you have questions on company policy, write the Editor, Nuclear Division News (or telephone your question in, either to the editor, or to your plant contact). Space limitations may require some editing, but pertinent subject matter will not be omitted. Your name will not be used, and you will be given a personal answer if you so desire.

### Respirators and beards

**QUESTION:** Reference is made to the article "Respirators vs. beards" in the March 17 issue of **Nuclear Division News**. At Paducah a bulletin was issued with an additional requirement: "Other persons whose work requires that they be in close proximity to respirator-wearers also must meet these requirements."

What is the reasoning behind this? Is it that management here just dislikes beards?

**ANSWER:** The sentence you referred to in the Paducah bulletin may have left the wrong impression. Paducah's intention is to have those employees who are required to wear respirators in the course of their normal job duties — and those others who might logically be required to do so — to be clean shaven, so that facial hair does not interfere with the respirator sealing surface.

### Invasion of privacy?

**QUESTION:** Recently ORNL exempt employees were issued directives to fill out biographical data for a personnel directory for our department, to be housed in each section.

In my opinion, this is information that belongs in the Director's office and should not be made available to others. How can we protect ourselves from this invasion of privacy?

**ANSWER:** While ORNL Director Herman Postma encourages participation in the personnel directory, he pointed out in his letter of January 30, 1977, on this matter that participation was to be voluntary and that necessary precautions would be taken to protect the confidentiality of the data involved.

If you feel that the spirit of the restrictions referred to in that letter is not being followed in your department, discuss this matter with your supervisor or division director.



**AFFIRMATIVE ACTION IN Y-12** — Representatives for Y-12 Affirmative Action Committee are seen prior to a recent meeting. Seated from left are Dorothy B. Sneed, Assembly Division; Mabel Tyer, assistant Y-12 affirmative action coordinator; James M. "Jiggs" Seivers, Y-12's coordinator; and Koleen W. Gentry, Security, Plant Protection and Utilities Division. Standing are David A. Jennings, Maintenance; L. "Buck" Davis, Materials and Services; George N. Cobham, assistant representative from Product Engineering and Scheduling; Tom R. Webber, Fabrication; Owen C. Willard, Product Engineering and Scheduling. Not seen in the photograph are W. Spence Wallace, Metal Preparation; and Lonnie H. Wright, assistant in Security, Plant Protection and Utilities. Affirmative action problems should be referred to the divisional representative. The above committee represents the production activities in the Y-12 Plant.

## safety scoreboard

Time worked without a lost-time accident through June 29:

Paducah .....	133 Days	1,733,060 Man-Hours
ORGDP .....	62 Days	2,087,200 Man-Hours
Y-12 Plant .....	134 Days	4,124,000 Man-Hours
ORNL .....	65 Days	1,424,712 Man-Hours



England

Hinton

## Two promoted at ORGDP

Two have been promoted at ORGDP. James C. England Jr. has been named a cost estimator in Engineering; and Daniel J. Hinton a supervisor in Fabrication and Maintenance.

England, a native of Asheville, N.C., joined Union Carbide at the Y-12 Plant in 1958, transferring to ORGDP in 1973. He worked for the Catalytic Construction Company prior to then, and worked at ORNL from 1948 until 1955. He served in the U.S. Marine Corps from 1944 until 1946.

He has attended the University of Tennessee.

England lives at Route 2, East Drive, Powell, with his wife, Barbara. They have six children, Allen, Karen, Tammy, Greg, Joyce and Jamie.

Hinton was born in Knoxville, and attended Knoxville Business College. He has been with Union Carbide 11 years, serving in the Guard Department and worked as a machinist and mechanic.

Mrs. Hinton is the former Naomi Bussell, and the couple lives at 3944 Porter Avenue, Knoxville. They have five children, Toni, George, Danetta, Daniel and LaCrechia.

### Warm weather energy-saver

If you can confine your living spaces to fewer rooms, close off the rooms that will not be occupied.

## Pension increase for pre-1976 retirees

An increase in pension benefits for employees who retired from active employment in the privately-owned plants of the Corporation before January 1, 1976, was announced by Union Carbide Corporation on June 23, 1977.

This increase was effective July 1, 1977, and applies to pension retirement and pension disability benefits being received from the Non-contributory Pension Plan and to benefits from the Contributory Retirement Plan, except for "ten-year-certain" payments to the beneficiary of a deceased retiree.

The increase ranges from 8 percent for those who retired after December 1, 1975, to 12 percent for those who retired December 1, 1973 and earlier, and is evidence of the continuing concern of the Corporation for its retirees.

In previous years, retirees have received increases in retirement benefits following both the 1969 and the 1973 improvements in the Pension Plan for active employees. The current change follows the significant ones previously announced in retirement benefits for active employees on January 1, 1976 which already are being received by those who retired after that date.

The Company has requested approval from the Energy Research and Development Administration (ERDA) to extend these retirement benefit improvements to retirees from the Nuclear Division. Each retiree who is eligible for the increase will be notified by letter as soon as the approval is received.

## wanted...

### ORNL

RIDERS from Maryville-Alcoa area to any portal at ORNL, 8-4:30, Bob Irwin, plant phone 3-6678.



**OTHER REPRESENTATIVES** — More Affirmative Action representatives are: Barbara S. Wilson, executive offices; Phyllis C. Johnson, Computer Sciences; Doris H. Shrader, Engineering; and Kay B. Condra, assistant in Development. Standing are Charles W. Holland, Technical; Horace E. Moorman, assistant in Technical; Margaret R. Wise, Law Department; Clarence R. Teeter, Product Certification; and William E. Tewes, Development. Not seen are Lowell L. McCauley, Office of Waste Isolation (OWI), and J. Leo Waters, Engineering.

## recreationotes

### Softball leagues ...

Two teams boast a perfect record in the Carbon League, and one in the Atomic League, as action gets hot in the two sandlot leagues over at the Park.

League standings follow:

#### CARBON LEAGUE

TEAM	Won	Lost	Pct
Fes Kids	9	0	1.000
Streakers	8	0	1.000
Master Batters	5	1	.833
C.S.D.	6	2	.750
Forty-Niners	6	2	.750
Crippled Turkeys	6	2	.750
Barrier Bombers	8	4	.667
Killer Bees	6	3	.667
Euler's Spoilers	4	2	.667
Knockers	5	3	.625
Prime Time Players	5	3	.625
League Leaders	4	4	.500
Health Physiques	4	5	.444
Up-Towners	4	5	.444
Fed No. 1	4	5	.444
Bombers	3	7	.300
Foul Balls	2	6	.250
Stinton's Stompers	2	6	.250
Odds 'n Ends	2	6	.250
Fed No. 2	2	7	.222
Tom's Turkeys	1	7	.143
The Cad Pack	0	7	.000
Pits	0	9	.000

#### ATOMIC LEAGUE

TEAM	Won	Lost	Pct
Snakes	7	0	1.000
War Hogs	7	1	.875
The Hawks	7	1	.875
Shifters	6	1	.857
Supersonics	6	1	.857
Apaches	6	1	.857
Over-The-Hill-Gang	4	1	.800
ESD	5	2	.714
Gashouse Gang	5	3	.625
Bruins	5	3	.625
The Electric Bananas	4	4	.500
Bad Nu's	4	4	.500
Dugout Dummies	5	6	.455
Short Circuits	3	4	.429
Arties' Army	3	4	.429
B. T. Express	3	4	.429
Junk Yard Dogs	3	4	.429
Thunderdogs	2	4	.333
Nads	2	5	.286
Bio-Rejects	1	7	.143
Clinton Labs	1	7	.143
Beta 4 Bunters	0	6	.000
The Black Sheep	0	8	.000
Red Light Gang**	0	8	.000

\*\*Dropped from League

### ORNL golf ...

Henry Tuck walked away with honors at the YMCA Center, as ORNL golfers hit the sunny greens. His par-72 was low, and Roy Barker came in second with 75. Handicap lows went to Bob Stone, 79; and J. Anglin, 76.

The second flight belonged to W. Paul, 78; and C. Thomas, 84. Russell Jenness copped handicap honors with an 84; and H. Thomas carded an 83.

Division three went to W. Cotter, T. Hill and M. Marshall, all with 90. M. Dickerson tallied a 93 to score second.

### Y-12 golf ...

John Baker repeated a win for Y-12's Whittle Springs tournament with a low 67 score! In second place were J. George, Merle Emery and S. Cameron all with an even par score.

Handicap honors went to Ray Riggs, 72; and Mickey Woody and J. Hamilton, each with 74.

The second flight went to J. Jones, 80; and L. Duke, 81. J. Greer and Tom Pappas cleaned up handicap lows, each with 82 and 83.

Division three went to L. Walton, with an 88 score, while Perry Bullard and A. Bryant tied for second honors with 89 each. Handicap lows went to L. Nance and J. Brown, 89 and 92.

### ORGDP golf ...

Benny Crass took the Southwest Point race for ORGDP golfers, with a 73, as Alvin Boatwright tallied a 75 card. John Battle took handicap lows with a 76, while C. Vanzyl carded an 83 score.

Division two went to D. Thacker, 82; and R. Campbell, 85. Bill Stanton took handicap honors with an 82, while V. Houston placed second with a 92.

Division three went to J. Balaneisky, 90; and G. Lay, 93. Handicap laurels were gleaned by D. Kerley, 95; and K. Keever, 94.



**PADUCAH BOWLING CHAMPS**—The Bushwhackers closed out the 1977 bowling season at the top of the charts to claim the season's title. Members are, from left, Jim Brown, John Scott, Ed Cothran, Roger Dew and Leroy Hall. Brown also took the season's high series with a 749 and Dew tossed the high single game, a 303 handicap total! Not present were team members Scotty Ray and Tom Kenney.

### Paducah photo exhibit ...

The Paducah plant is again this year sponsoring a plant photography exhibit and contest. Two divisions will be offered — Large Format (8x10 and larger) and Small Format (5x7 and smaller). All entries are to be color prints, mounted and titled. First, second and third place awards will be given in each category as well as a "Best of Show."

Employees may enter up to three photographs per category in the Large Format division and/or two photos per category in the Small Format division.

Entry forms may be pulled from posters located throughout the plant or may be obtained in the Recreation Department in C-100. The department also has mat board available for mounting prints.

### Y-12 bowling ...

The Y-12 Classic League, which rolls at 5:45 on Thursday at Tri-County Lanes, has three openings for teams in their line up. They begin rolling in September. Interested parties should call the Recreation Department, extension 3-5833.

### Paducah Swimming ...

Sessions are still going on at the Noble Park Pool to instruct Carbiders and their families in safe swimming skills and practices. An additional special session will be held July 23 for parents who have submitted entries in the "Teaching to Teach" classes designed for parents who would like to learn how to teach their children to swim. Those interested should be at the pool at 9:30 a.m. and report to Tom Brazzell for instructions.

### PGDP men's golf ...

Paducah golf enthusiasts can start preparing for the plant's next open scramble on July 23 at the Rolling Hills Country Club. In the meantime, regular league play continues on Tuesday evenings at Paxton Park. The line up at this point has the Drivers in first place with a total of 98 points followed by the Eagles with 81. The Chippers hold a close third at 80 points won. The Long Knockers have a 2 point lead of 78 over the fifth place Birdies with a cumulation of 76 and the One-Putts are in sixth place with a seasonal record of 67 at this time.



**ANNUAL PICNIC** — The Finance, Materials and Services and Employee Relations Divisions at ORGDP are planning their big annual picnic July 15. It will begin at 5:30 p.m. at the Clark Center Recreation Park. There will be softball games, children's games and plenty of other entertainment, good food and all. Tickets are \$2.25 per adults and \$1.25 for children, and may be purchased throughout each division and at the park the day of the affair.

### Tee-Off Time Application for July 30

(Check Appropriate Plant)

ORGDP—Family Y.M.C.A. ☐

Y-12—Southwest Point ☐

ORNL—Deadhorse Lake ☐

1. \_\_\_\_\_ Leader \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_ Phone \_\_\_\_\_

4. \_\_\_\_\_ Time Preferred \_\_\_\_\_

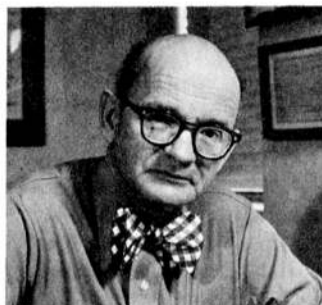
#### COMPLETE AND RETURN TO THE RECREATION OFFICE

Entries must be received prior to drawing on June 27, 2 p.m.

**Y-12—Building 9711-5**

Tee-off times for all tournaments will be drawn on Wednesdays prior to each Saturday's tournament. Golfers are responsible for reserving their own carts by contacting the pro shop following drawing for tee-off times. Please call the Recreation Department, 3-5833, after 3 p.m. Wednesday for tee time.





## Alcohol: The sneak thief

by T. A. Lincoln, M.D.

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)

Alcohol is best known for the pleasant roles it plays in the drama of life. It is a friend for the miserable and a companion for the sociable. Its role as a killer of the overindulgent is also well-known but is largely ignored. Its role as a sneak thief is not familiar because, like its name, it is seldom seen or heard. Fortunately, during the past 10 years, medical "detectives" have frequently caught the thief and discovered what it was stealing!

Alcohol may produce a wide variety of symptoms, signs and abnormal laboratory findings long before it causes a distinct disease which has a discrete diagnosis. Many expensive visits to physicians and many laboratory tests often do not yield the answer. Why? The real culprit wasn't suspected because the necessary information was either withheld, or was not actively sought. Dozens of examples could be cited.

### High blood pressure

High blood pressure is found during a routine physical examination. A few tests are performed to try to find a specific cause. They are negative. The diagnosis is essential hypertension. The "essential" means that the cause is believed to be unknown. Anti-hypertensive medication is prescribed. Unpleasant side effects are endured. The real cause? Alcohol? If the patient consumes more than 4.5 ounces of 90 proof whiskey (three drinks) or approximately four beers each day, alcohol may be the cause. Absolute abstinence for 30 days will determine how important it is. Many patients' blood pressures will return to normal. Whether lesser amounts play a significant role is uncertain, but the answer is "possibly," so moderation is advisable.

During a routine physical examination, an abnormal electrocardiogram is found. The finding is "nonspecific ST and T changes". In the absence of symptoms, these findings are usually ignored. Sometimes an exercise electrocardiogram is performed to rule out coronary heart disease. The real cause? Frequently alcohol. If the patient abstains for 30 days the ST and T changes go away.

The patient is overweight and a blood sugar determination is abnormal. A glucose tolerance test is performed, and the diagnosis of diabetes is made. The real cause? It

may be alcohol. Thirty days' abstinence followed by a repeat test may show the return to a normal glucose tolerance.

### Elevated uric acid

A markedly elevated uric acid is found during the performance of routine serum chemistries after admission to the hospital for an elective surgical procedure. The patient has no history of gout and is not on thiazide diuretics to treat high blood pressure. The reason? Possibly alcohol. Many heavy drinkers have elevated uric acid levels which return to normal usually within two weeks after complete abstinence.

The patient complains of sore and weakened muscles in the legs or back. They sometimes feel swollen. There has been no injury or other illness and there are no localizing signs to suggest, for example, a ruptured disc. The reason? Frequently alcohol. Years of chronic heavy drinking, even though not at a level to consider as alcohol dependence, may cause striking structural damage to muscles. Unfortunately, abstinence of alcohol may not cure. If the damage is not severe, improvement should be expected after 30 to 90 days' abstinence.

Chronic unsightly fungus infections of the nails of the hands or feet is the problem. A possible cause? Alcohol overconsumption.

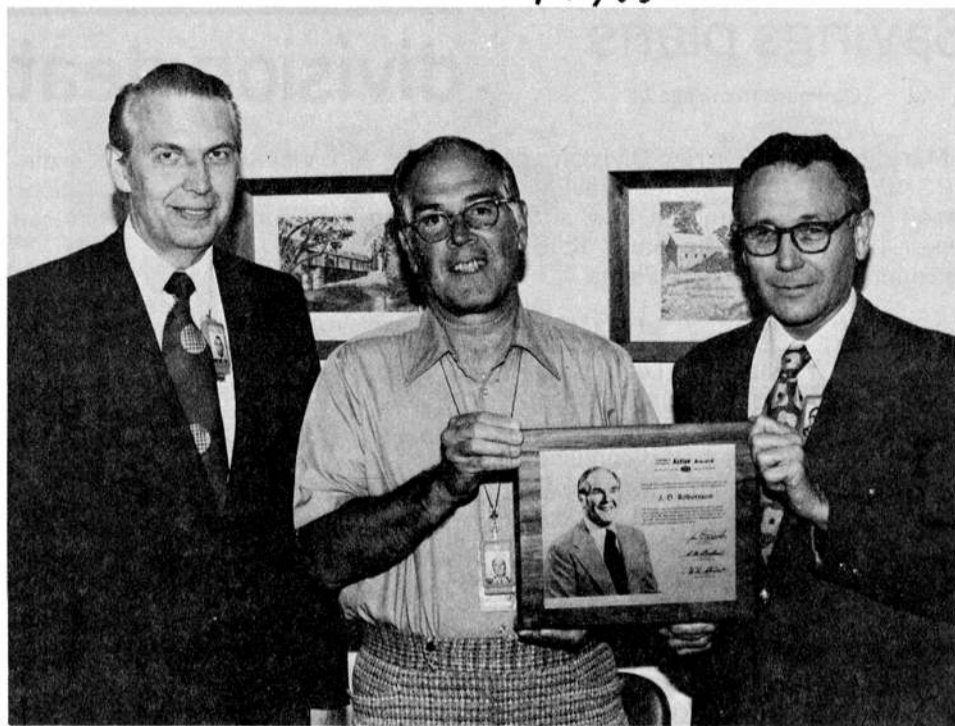
### "Chipmunk facies"

Over the years the face has changed its shape. The salivary glands in front of the ears and along the back of the jaws have become more prominent. It is called by physicians, the "chipmunk facies." The reason? Alcohol-induced parotid gland enlargement. It may take many months to go away after abstinence, and sometimes it will never disappear.

Although the man in question is only 45, he has lost his interest in sex. Age? Hormone problems? Maybe, but more likely it is excessive consumption of alcohol.

Fatty diarrhea called steatorrhea is the chronic complaint. The concern is a diseased pancreas. The cause? Excessive alcohol over many years.

Abnormal liver function tests are found during a routine physical examination. The reason? Liver function has been impaired by excessive consumption of alcohol. What is excessive for one person may not



**DIVIDEND RETURNED** — James D. Robertson Jr., center, learned the Heimlich Maneuver (first-aid to a choking victim) at a safety meeting last winter in the Y-12 Plant. He saved a fellow employee's life in April, successfully administering the method in a lunchroom in the plant. He is seen with William S. Dritt, superintendent of quality evaluation, left, and Roy D. Williams, production manager for Y-12, right.

## Robertson saves fellow employee's life with safety meeting tip

Choking to death on food and other foreign objects is the sixth leading cause of accidental death in this country, authorities have stated. Unless aid is administered immediately the choking victim dies from suffocation.

A safety meeting back in December featured the Heimlich Maneuver, where the choking victim is approached from the back and a quick squeeze on his midriff dislodges the stuck object.

When James D. Robertson attended that Assembly Division meeting, little did he realize that in a bare three months he would be able to save a fellow employee's life using the exercise.

damage another. The answer? Abstinence from alcohol for 30 days and a retest. If then normal, use of alcohol in the future must be below a level which will cause abnormal liver function tests.

A chronic bronchitis or sinusitis that won't leave? The cause? Alcohol interferes with the formation and function of white blood cells and gamma globulin, our principal reserves for fighting infection.

Many more examples could be cited. Alcohol is directly toxic to the liver, pancreas, gastrointestinal tract, brain, skin, muscles and heart and has adverse effects on the immune and endocrine systems. At moderate consumption, the effects are either absent or are modest. The level varies with each individual. Whenever some health abnormality is detected, one of the first questions to ask oneself is, "Am I drinking too much?" If your physician asks, tell him the truth. If he doesn't ask, volunteer and inquire as to whether it may be an important contributing factor.

Alcohol steals health away from its overusers without their ever being aware of the loss until the damage becomes severe and often irreparable.

A special citation went to Robertson recently, reading in part: "In recognition and appreciation of action taken and an outstanding safety contribution made in behalf of fellow employees" where he "successfully administered the Heimlich Maneuver, and saved a fellow employee from choking."

## Random selection will be surveyed

A few randomly-selected employees in the Nuclear Division will be surveyed this month by Opinion Research Corporation, Princeton, N.J. This opinion survey is not to be confused with the attitude surveys which were directed toward participant's specific work situations.

The ORC survey focuses on communication and the employee's view of Union Carbide as a member of the business community. As stated, only a few employees at any given location will receive questionnaires in the mail.

## 'Join the crowd'

(Continued from page 3)

and mail it to Nuclear Division Payroll in our envelope.

Answers to many questions can be found in the literature received by each employee. If you have other questions or should want assistance in completing the enrollment card, the Benefit Plans office at your work location will be glad to help you.

In his letter which appeared in the last issue of **Nuclear Division News**, William S. Sneath, Chairman of the Board of Union Carbide, who has visited Oak Ridge and Paducah on many occasions, said "If you are not yet in the Payroll Savings Plan, I urge you to look ahead and join. One day, you will look back and be glad."

## Savings plans

(Continued from page 1)

**Mary F. Hillard**, Barrier Division at ORGDP, is going to take her savings payoff and help finance a new auto repair business her husband, R. B., has opened at Strawberry Plains.

\* \* \*

**Donald W. Jared**, Technology Utilization and Commercialization officer at ORNL, plans to use his savings plan to "rebuild my half-demolished house." Jared was not a victim of a natural disaster . . . instead, his construction efforts are for new additions to his house. Specifically, a carport, workshop, study and greenhouse.

"Actually, the greenhouse will serve a dual role: not only will it house our hodge-podge of plants, but will also serve as an 'animal house' for our dog and two cats," says Jared.

He and his wife, Dee, live at 107 Fulton Lane, Oak Ridge.

*"Probably 'blow it,' I guess."*

**Anita S. Barker**, certified professional secretary in the Physics Division at ORNL, hadn't really thought much about her savings plan becoming due. "I'm never really aware that they've taken anything out of my check. It's a painless way to save money because I don't miss what I've never seen."

What will she do with her savings plan? "Probably 'blow it,' I guess." By "blowing it" Barker means spending it on furniture or something for the house.

Barker and her husband, James, live at 1805 Foxfire Court, Knoxville.

*"Pay off all our bills, then purchase a new car."*

Detroit will be happy to hear that **Jim Anderson**, Y-12's Alpha 5 Processing, will be putting a new automobile in front of his 105 East Hunter Circle, Oak Ridge, home. "It's great to be able to pay for a car . . . and many dealers give a big discount for a cash sale."

\* \* \*

And so the comments go . . . from paying off old and new debts to keeping up with inflation. One employee even remarked that he was going out and buy an extra pound of coffee last week!

## division deaths

**Paul A. Bielefeld**, cascade coordinator in PGDP's Cascade Operations Division, died June 18 at his Paducah home.

A native of Louisville, Mr. Bielefeld received his degree from the University of Louisville in electrical engineering. He joined Union Carbide in 1952, after two years with Ford Motor Company. He was a veteran of the U.S. Army, and a member of the American Institute of Electrical Engineers and the Institute of Radio Engineers.

Survivors include his wife, Jeanette Bielefeld, 2300 Clay Street, Paducah; a daughter, Paula and a son, Gary; a brother, Dave Bielefeld; and sisters, Ruth Knox, Mary Watts and Martha Bielefeld.

Funeral services were held at the Roth Funeral Chapel.



Mr. Bielefeld

**Jerry K. Daniels**, a supervisor in Y-12's Maintenance Division, died June 24.

A native of Lake City, Mr. Daniels graduated from Tennessee Technological University, and was employed by the juvenile courts in Anderson County prior to joining Union Carbide in 1971. He also served as recreation director for the city of Clinton.



Mr. Daniels

He is survived by his wife, Bertha Fox Daniels; son, Kenneth Daniels; daughter, Kim Daniels; mother, Clara L. Romines; brother, T.R. Daniels; and sisters, Levina Loveday and Faye Law.

Graveside services were held at the Tennessee Valley Memory Gardens.

**Van Vail Jr.**, a process operator in Y-12's Alpha 5 Processing, died June 18 in a Knoxville hospital. He lived at 301 Quincy Ave., Knoxville.

A native of Bronson, Mich., he was a veteran of the U.S. Army and joined Union Carbide in 1955.

Survivors include his wife, Juanita Helton Vail; daughters, Connie Vail and Betty Webb; three grandsons; and sisters, Elizabeth Norlin and Janice Jarvis.

Funeral services were held at the North Lonsdale Church of God with interment in Oak Grove Cemetery, Rockwood.



Mr. Vail

A native of Detroit, Mr. Richardson also worked in the Reactor Experimental Engineering Division as well as the Chemical Technology Division. He was a member of the American Chemical Society.



Mr. Richardson

Survivors include his wife, Elizabeth; daughter, Celeste; and sister, Cecilia R. Dean.

The family requests that any memorials be in the form of gifts to Housing Assistance Trust Fund-HOME, in care of the Rev. C. E. Weber, 205 Michigan Ave., Oak Ridge.

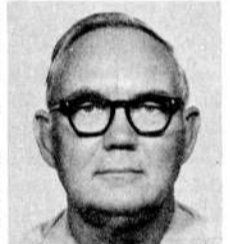
Memorial services were held in United Church Chapel-on-the-Hill.

**James P. Sprain**, ORNL senior health physics technician in the Industrial Safety and Applied Health Physics Division, died on Saturday, June 25.

A Carbidier since 1945, Mr. Sprain has spent all 32 years in the Health Physics Division.

He is survived by his wife, Mary Margaret; three daughters; Debra, Pamela and Rebecca; three sons, Donald, Ronald and Phillip (Butch); sister, Georgia Potter; two brothers, Bayless and Eugene; and nine grandchildren.

Services were held at Stevens Mortuary Chapel, Knoxville, with burial in Highland Memorial West.



Mr. Sprain

**WHEEL STOP** — Carry a brick in the trunk of your car as insurance in the case of flat tires. It makes a good wheel chock, when used along with the hand brake, while you're changing a tire.

wanted



Y-12

JOIN car pool from Grove Center area, Oak Ridge, to Pine Ridge or West Portal, straight day. Richard Tharpe, plant phone 3-7169, home phone Oak Ridge 483-4489.

## Fusion subcontracts

(Continued from page 2)

results and the information which will be obtained on magnet engineering and manufacturing techniques should support confident use of superconducting magnets in fusion reactors.

"This should move the U.S. much closer to the goal of demonstrating a practical fusion power reactor."

Haubenreich is project manager for ORNL's Large Coil Program, which was organized to procure, test and evaluate superconducting magnet coils for tokamaks. Other members of the project's management team are James Luton of the Fusion Energy Division and Phillip Thompson and Louis Nelms of Nuclear Division Engineering.

wanted



Y-12

RIDE WANTED from S. Maryville to North Portal, straight day. Shirley Taylor, plant phone 3-5445, home Maryville 984-1795.

ORNL

JOIN van or car pool from Englewood Place, vicinity of 300-400 East Drive, Oak Ridge, to East or North Portal, 8-4:30 shift. Bob Feldman, plant phone 3-6933, home phone Oak Ridge 483-0930.

ORNL

RIDE from Fox Den Condominiums, Watts Road Exit, 8:15-4:45. Sue Alley, 3-1604.

CAR POOL MEMBER from areas of Suburban Shopping Center, Kingston Pike or Walker Springs Road, Knoxville, to South Portal, 8-4:30. E. L. Fair, home phone 693-3211, plant phone 3-6775.

FIFTH CAR POOL MEMBER from vicinity of Landmark subdivision, Country Club Apartments or Gulf Park subdivision, Knoxville, 8:15-4:45. Jackie W. Sims, plant phone 3-1486, home phone 693-8829.



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